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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,077	12/11/2003	Wade Lee Bowles	71744 CCD	1285

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EXAMINER

LIN, ING HOUR

ART UNIT PAPER NUMBER

1725

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

**Office Action Summary**

Application No.

10/735,077

Applicant(s)

BOWLES ET AL.

Examiner

Ing-Hour Lin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/04 &amp; 4/05</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-7, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over CH 639,884 in view of Klotzbiicher et al and further in view of Koch et al.

CH '844 (see abstract and Figs. 1-5) teaches apparatus of horizontal casting installation for continuously casting metal billets (strands 13), comprising feed trough (casting gate compartments 6-8) for feeding molten metal to each mold inlet of each mold and a horizontal conveyor (transport device) having a respective belt (transport chain 14) including motor 21, drive pulley 14, roller clamp 22, links 15 for each strand. The links form a V-shape support (channel) for receiving each strand.

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CH '844 fails to teach the use of a synchronous cutting saw and resilient property for the V-shape support. However, Klotzbiicher et al (col. 4, lines 42+) teach the use of a synchronous flying saw in installation for the production of continuously cast billets for the purpose of effectively cutting the billet. Further, Koch et al teach the use of metal and non-metal such as synthetic plastics for the link1 including plastic integral teeth 5 for the purpose of generating resilient property and reducing friction force and noise for motion the link. It would have been obvious to one having ordinary skill in the art to provide CH '844 the use of a synchronous cutting saw and resilient property for the V-shape support as taught respectively by Klotzbiicher et al and Koch et al in order to effectively improve the synchronized advancement of sheared billets and generate resilient property for the link and reduce friction force and noise for motion the link.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over CH 639,884 in view of Klotzbiicher et al and further in view of Koch et al and Brooke et al.

CH 639,884 in view of Klotzbiicher et al and further in view of Koch et al fails to teach the use of an insert of a low friction support. However, Brooke et al (col. 1, lines 72+) teach the use of a magnetized insert of low friction support 20, 21 for the purpose of further improving of the resistance to the applied load. It would have been obvious to one having ordinary skill in the art to provide CH '844 in view of Klotzbiicher et al and further in view of Koch et al the use of an insert of low friction support as taught by Brooke et al in order to improve the resistance to the applied load on the link of the conveyor.

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5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over CH 639,884 in view of Klotzbiicher et al and further in view of Koch et al and Lyons.

CH 639,884 in view of Klotzbiicher et al and further in view of Koch et al fails to teach the use of a tensioning means. However, Lyons (col. 1, lines 63+) teaches the use of a tensioning means (adjusting means 13, 13a) for the purpose of adjusting tension force on the belt conveyor. It would have been obvious to one having ordinary skill in the art to provide CH '844 in view of Klotzbiicher et al and further in view of Koch et al the use of a tensioning means as taught by Lyons in order to adjust tension force on the belt conveyor.

6. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over CH 639,884 in view of Klotzbiicher et al and further in view of Flowers.

CH 639,884 in view of Klotzbiicher et al fails to teach the use of a mold alignment device. However, Flowers (col. 2, lines 52+) teaches the use of a mold alignment device including a guide means 32 and an adjustable started head 36 for the purpose of adjusting orientation relation between mold opening and starter head and controlling lubricant prior to casting. It would have been obvious to one having ordinary skill in the art to provide CH '844 in view of Klotzbiicher et al the use of a mold alignment device as taught by Flowers in order to adjust orientation relation between mold opening and starter head and controlling lubricant prior to casting.

7. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over CH 639,884 in view of Klotzbiicher et al and further in view Sugimoto.

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CH 639,884 in view of Klotzbiicher et al fails to teach the use of a resistance load means. However, Sugimoto (col. 2, lines 52+) teaches the use of a resistance load means of a hydraulic system the purpose of controlling saw-frame cutting feed speed in a sawing machine. It would have been obvious to one having ordinary skill in the art to provide CH '844 in view of Klotzbiicher et al the use of teach the use of a resistance load means as taught Sugimoto in order to effectively control the efficiency of cutting billets.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Follrath et al in view of Klotzbiicher et al.

Follrath et al (col. 3, lines 1) teach the claimed method for controlling the cut of a rotary cutting blade 146 on a billet (ingot 24) using a movable saw assembly 12 associated with a continuous casting machine and transferring the cut billet to a table 155 (second conveyor). Follrath et al fails to teach the use of accelerating the frame and saw from a start position and a second conveyor for moving the cut billet. However, Klotzbiicher et al (col. 4, lines 42+) teach the use of accelerating the frame and saw from a start position to the casting speed in the direction of extracted casting direction for the purpose of effectively controlling the cutting of the billet. It would have been obvious to one having ordinary skill in the art to provide Follrath et al the use of teach the use of accelerating the frame and saw from a start position to the casting speed as taught by Klotzbiicher et al in order to effectively control the cutting of the billet.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ing-Hour Lin whose telephone number is (571) 272-1180. The examiner can normally be reached on M-F (8:00-5:30) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*I.H.L.*

I.-H. Lin

4-27-05

KEVIN KERNS *Kevin Kerns 5/2/05*  
PRIMARY EXAMINER